

Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Dianne R. Nielson, Ph.D., Division Director

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August 28, 1986

Mr. Gregory H. Boyce, Director Environmental Affairs Kennecott P. O. Box 11248 Salt Lake City, Utah 84147

Dear Mr. Boyce:

Re: Revegetation Test Study Program, Utah Copper Division Modernization Project, Kennecott Corporation, ACT/035/002-(I & II), Salt Lake County, Utah

The Division has completed the review of Kennecott's preliminary revegetation test study program proposal. The June 26, 2986 submittal contains the following technical deficiencies.

## M-10 (14) SOILS - JSL

1. Prior to the application of fertilizer, each individual soil type (100% A, 50% B/50% A, and 100% B horizon) must be chemically analyzed for: nitrogen, available phosphorus, potassium, pH and electrical conductivity. The type and rate of fertilizer application, organic matter content and the data from the soil analysis must be submitted to the Division at least 30 days prior to the anticipated date of application.

The Division suggests that digested municiple sewage sludge be implemented as an organic matter amendment. It is our understanding that a potential source may be available from the new Central Valley Water Reclamation Treatment Facility.

Research has shown that sewage sludge amendments significantly increase aboveground biomass. This increase in productivity is likely due to increases in nutrient availability, improved physical condition of the soil and the possible stimulation of microbial activity.

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- 2. If sewage sludge is used as the organic matter amendment, the fertilizer rate will then have to be correlated with the nutrient capacity of the municiple sludge. Therefore, analysis of the municiple sludge would also be necessary prior to implementation on the test plots. The results from analytical testing of the sludge must also be presented to the Division 30 days prior to the anticipated date of application.
- 3. The evaluation date of vegetation success has been inaccurately described. Please correct the 1967 date to 1987.
- 4. It is the Division's opinion that the species trials could be implemented this fall. We would like to schedule a site visit at that time. Please notify Wayne Hedberg, Lynn Kunzler, or James Leatherwood at least one (1) week prior to implementation to allow the Division time to schedule an onsite visit.

Thank you for your cooperation in working with the Division to prepare this revegetation test plot study program. We look forward to future meetings and discussions as the development of this program proceeds. Please contact us at your convenience should you have questions or concerns.

Sincerely,

L. P. Braxton Administrator

Mineral Resource Development and Reclamation Program

DWH:jvb

cc: Marv Maxell
Dianne Nielson
Ken May
Lynn Kunzler
James Leatherwood

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